MISSOURI

American Road & Transportation Builders Association

2020 Bridge Profile

Highlights from FHWA's 2019 National Bridge Inventory Data

- Of the 24,494 bridges in the state, 2,146, or 8.8 percent, are classified as structurally deficient. This means one of the key elements is in poor or worse condition.
- This is up from 2,067 bridges classified as structurally deficient in 2015.
- The deck area of structurally deficient bridges accounts for 9.1 percent of total deck area on all structures.
- 70 of the structurally deficient bridges are on the Interstate Highway System.
- 4,381 bridges are posted for load, which may restrict the size and weight of vehicles crossing the structure.
- The state has identified needed repairs on 4,800 bridges at an estimated cost of $1.7 billion.
- This compares to 5,044 bridges that needed work in 2015.

Bridge Inventory

Type of Bridge	All Bridges			Structurally Deficient Bridges		
	Total Number	Area (sq. meters)	Daily Crossings	Total Number	Area (sq. meters)	Daily Crossings
Rural Bridges						
Interstate	476	495,477	7,094,957	30	43,672	411,392
Other principal arterial	1,189	1,089,894	7,793,700	50	58,362	279,104
Minor arterial	1,137	671,728	3,229,289	85	66,996	192,909
Major collector	3,960	1,393,617	4,025,999	467	193,557	361,481
Minor collector	1,052	235,546	409,904	132	35,005	40,544
Local	11,983	1,733,580	954,776	1,085	124,846	87,829
Urban Bridges						
Interstate	903	1,905,606	42,371,987	40	184,721	2,198,416
Freeway/expressway	623	935,175	13,044,195	25	103,470	494,347
Other principal arterial	489	645,610	8,882,868	23	33,892	378,993
Minor arterial	837	801,740	7,726,641	47	56,084	410,111
Collector	832	465,167	3,244,381	55	43,328	193,590
Local	1,013	263,296	1,325,285	107	18,994	127,022
Total	**24,494**	**10,636,435**	**100,103,984**	**2,146**	**962,926**	**5,175,738**

Proposed Bridge Work

Type of Work	Number	Cost (millions)	Daily Crossings	Area (sq. meters)
Bridge replacement	2,758	$927	3,966,993	804,540
Widening & rehabilitation	1	$1	5,934	1,810
Rehabilitation	1,998	$794	9,368,302	1,020,246
Deck rehabilitation/replacement	0	$0	0	0
Other work	43	$9	13,511	10,904
Total	**4,800**	**$1,731**	**13,354,740**	**1,837,500**

MISSOURI

American Road & Transportation Builders Association

2020 Bridge Profile

Top Most Traveled Structurally Deficient Bridges in Missouri

County	Year Built	Daily Crossings	Type of Bridge	Location
St. Louis	1964	202,179	Urban Interstate	IS 270 E over CST Conway Rd
Jackson	1964	149,496	Urban Interstate	IS 435 S over Grave Cr
St. Louis	1931	133,504	Urban Interstate	IS 270 E over Maline Cr
St. Louis	1960	127,382	Urban Interstate	IS 270 E over Coldwater Cr
St. Louis	1963	122,667	Urban Interstate	IS 55 S over Mississippi Rvr, CST S L
St. Louis	1968	121,263	Urban Interstate	IS 170 E over Rvr Des Peres
Platte	1967	104,776	Urban Interstate	IS 29 N over CST 56th St
Clay	1972	98,427	Urban Interstate	IS 435 S over Missouri Rvr, CST NE Bir
Clay	1967	98,427	Urban Interstate	IS 435 S over Drain Dtch
Platte	1957	90,688	Urban Interstate	IS 29 S over Rt Aa

About the data: Data is from the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), released April 2, 2020. Note that specific conditions on bridges may have changed as a result of recent work or updated inspections.

Effective January 1, 2018, FHWA changed the definition of structurally deficient as part of the final rule on highway and bridge performance measures, published May 20, 2017 pursuant to the 2012 surface transportation law Moving Ahead for Progress in the 21st Century Act (MAP-21). Two measures that were previously used to classify bridges as structurally deficient are no longer used. This includes bridges where the overall structural evaluation was rated in poor or worse condition, or where the adequacy of waterway openings was insufficient.

The new definition limits the classification to bridges where one of the key structural elements—the deck, superstructure, substructure or culverts, are rated in poor or worse condition. During inspection, the conditions of a variety of bridge elements are rated on a scale of 0 (failed condition) to 9 (excellent condition). A rating of 4 is considered "poor" condition.

Cost estimates have been derived by ARTBA, based on 2018 and average bridge replacement costs for structures on and off the National Highway System, published by FHWA. Bridge rehabilitation costs are estimated to be 68 percent of replacement costs. A bridge is considered to need repair if the structure has identified repairs as part of the NBI, a repair cost estimate is supplied by the bridge owner or the bridge is classified as structurally deficient. Please note that for a few states, the number of bridges needing to be repaired can vary significantly from year to year, and reflects the data entered by the state.

Bridges are classified by FHWA into types based on the functional classification of the roadway on the bridge. Interstates comprise routes officially designated by the Secretary of Transportation. Other principal arterials serve major centers of urban areas or provide mobility through rural areas. Freeways and expressways have directional lanes generally separated by a physical barrier, and access/egress points generally limited to on- and off-ramps. Minor arterials serve smaller areas and are used for trips of moderate length. Collectors funnel traffic from local roads to the arterial network; major collectors have higher speed limits and traffic volumes and are longer in length and spaced at greater intervals, while minor collectors are shorter and provide service to smaller communities. Local roads do not carry through traffic and are intended for short distance travel.